Example of a Laboratory Audit Form/Checklist

Laboratory Systems Audit Worksheet

Laboratory:		Date:	
Auditor(s):		Signature:	

Sample Information:

Project Code:		Sampling Date:	
Field ID #:		Lab ID #	

General Information:

	Y/N	Comments
Sample Containers and Equipment Decontamination and Prep:		
Is decontamination procedure acceptable?		
Is sample equipment storage procedure acceptable?		
Is there an existing QC check on bottles and sampling equipment?		
Are certificates for pre-cleaned bottles maintained on file?		
Is the preservation preparation and dispensing documented and traceable?		
Sample Log-in and Receipt:		
When were samples submitted to lab?		
When were samples logged into LIMS?		
Was sample temperature checked upon receipt?		
Was sample preservation checked upon receipt?		
Do LIMS #s match the corresponding field #s?		
Is the sample storage area secured?		
Are samples stored in appropriate refrigerator?		
Was storage refrigerator temperature monitored daily?		
Was client notified of any discrepancies?		
Is log-in procedure adequate?		
Is COC adequate?		
Check sample COC for completeness and accuracy.		
What % of samples is lost due to defective containers?		
What % of samples is lost due to misidentification?		
QA/QC:		
Is Quality Manual current?		
Obtain copy of FDOH certification – Is lab certified to perform all tests?		
Frequency of generating analytical limits		
Date of last analytical limits generation		
Are QC charts used?		
Frequency of MDL determination		
Date of last MDL determination		
Method used in MDL determination		
PQL calculation		
Are calibration and reference stds NIST traceable?		
Is standards, reagents, and QC checks prep documented and traceable?		
Frequency of calibrating analytical balances		
Date of last internal systems audit – obtain copy		
Types of problems identified on last systems audit and corrective action taken		
Date of last performance evaluation series? Obtain copy.		
Results of last performance evaluation series acceptable for all tests?		
Results of round robin studies or split samples acceptable? Obtain copy.		
Equipment:		
Has equipment preventative maintenance been documented?		
Are service contracts in place and current for major equipment?		
Are contingencies adequate in case of major breakdown or catastrophe?		
Data Verification and Validation:		
Protocol for initiating rework		
Were any reworks performed on the samples? Did the values match?		
Protocol for data validation followed?		
Is protocol in place to evaluate project specific DQOs /requirements?		

Protocol for corrective action followed?		
How are out of HT samples handled?		
How are data qualifiers applied to the data?		
Was client notified of any deficiencies (if applicable)?		
Reporting and Records Management:		
Is the laboratory identified on every page of the report?		
Is the reporting protocol and format acceptable?		
Does the reporting system undergo adequate QC checks?		
Are records maintained in a safe location and in good order?		
Can records be easily located?		
Is the records retention protocol acceptable?		
Have provisions been made for transfer of records in the event of laboratory closure or sale?		
Laboratory Documents:		
Is laboratory document control system active and adequate?		
Are all SOPs signed and accessible to staff performing the tests?		
Water System:		
Source and type of treatment in place?		
Water system checks documented?		
What was the date of last annual water quality test?		
Facility:		
Is the available lab space, resources, and air handling system adequate to facilitate performance of tests?		
Describe general housekeeping condition and practices.		
Laboratory personnel:		
Was demonstration of capability performed?		
Is training program in place and current?		
Are analysts knowledgeable about procedures they perform?		
Describe general housekeeping conditions and practices.		

Supplemental Audit Worksheet for: MERCURY AND METHYL MERCURY

Sample bottles and sampling trains:	Y/N	
Are there containers and trains dedicated for CERP projects only?		
Sample receipt and storage:		
Are samples stored in refrigerator dedicated for trace level samples?		
When was preservation added to the sample?		
Who is responsible for sample preservation in the laboratory?		
Analytical procedure and QA/QC:		
Reference method for Total Hg; modifications		
Reference method for Me Hg; modifications		
Obtain copies of method validation and equivalency status		
Digestion procedure for each matrix followed?		
Types of problems identified on last systems audit (specific to TotHg and Me Hg)and corrective action taken		
Obtain copy of most recent QC charts		
Obtain acceptance criteria for each QC measure.		
Spiking level, spike blank		
Spiking level, matrix spike		
Are sediment and biota samples spiked?		
Type of SRM Used		
Protocol for initiating rework		
Are clients notified of original and rework values?		
Clean Environment:		
Is the lab maintained under positive pressure?		
Is the lab monitored for mercury vapor?		
Water System:		
Source and type of treatment in place		
Is Milli-Q water monitored for mercury contamination & at what freq.?		

Quality Control

Test	HT met	Method	QC Recoveries Acceptable?								Maint Log	Standards, QC & Reagent prep logs	Comments
			QC check	Spikes	Precision	Calibration							
						# stds	Range	CCV	Correlation	Method Blk			

DIGESTION/SAMPLE PREP

Analyte Group	Ref. Method	Digested Blanks?/#	Digested Standards?/#	Digestion Log?	Comments